

REMARKS

Reconsideration of the application is respectfully requested.

The following discussion addresses the issues in the order in which they were raised in the Office Action.

Claims Rejected Under 35 U.S.C. §102

Claims 1, 4-16, 18-20, 22-24, and 26-27 are rejected as being anticipated by U.S. Publication No. 2002/0109879 issued to Wing So ("Wing So"). According to the Office Action, Wing So discloses an optical communication system in which a network provider chooses to protect the network depending on which failures can be recovered from. Wing So assumes that recovery is guaranteed for all individual channel, link and single fiber span failures. There are three aspects to the restoration methodology: reservation of restoration capacity, failure detection, and exception handling. Wing So, paragraph [0209]. Later, Wing So describes how a first-hop router stores all of the restoration routes for which it is responsible. Wing So, paragraph [0220] – [0222].

However, Wing So does not teach or suggest Applicants' claimed methodology that is specific to ATM PNNI networks. In particular, referring now to claim 1 as amended here, Applicants' claimed method is directed to a PNNI route lookup procedure for a diverse route in an ATM network, where first and second physical link identifiers are propagated to the nodes of the ATM network, within system capabilities information fields of PNNI PTSE packets. One route is selected instead of another route, as a diverse alternate route to reestablish a connection that uses a first route, by comparing the received first and second physical identifiers.

Applicants' methodology advantageously uses the existing PNNI message or packet routing protocol (signaling protocol) for ATM networks, to ensure greater reliability. Note that the conventional PNNI signaling protocol considers each trunk distinct, in that the protocol does not "see" which fibers a particular trunk passes through. Applicants' claimed method however gives PNNI ATM network elements (*e.g.*, switches) more visibility of the network, to provide a more reliable PNNI ATM

network, without impacting the requirements of other conventional PNNI ATM network elements. The physical link identifiers that are embedded in the PTSE packets (as recited in Applicants' claim 1) will be ignored by those conventional PNNI ATM network elements which do not have Applicants' claimed diverse route lookup process implemented in them. This allows the new PNNI ATM network element (that includes Applicants' claimed diverse route lookup process) to interoperate with existing network elements, and improve reliability of the network.

Although Wing So generally discusses how it may be desirable to guarantee recovery from any type of link failure by reserving alternate diverse routes, it does not teach or suggest Applicants' claimed methodology for PNNI ATM networks.

It should be noted that although paragraph [0793] of Wing So refers to the ATM protocol as a means of establishing connections or virtual paths between routers, and ATM's automated connection recovery between switches, there is no teaching or suggestion that PNNI PTSE packets be used in the manner recited in Applicants' claim 1 for computing a diverse route. Wing So appears to criticize ATM switches and in particular the PNNI protocol as being slow during restoration, as compared to a SONET/SDH ring, but does not teach Applicants' claimed methodology for improving the reliability of PNNI in the manner recited in Applicants' claim 1.

The remaining independent claims have been amended in a manner similar to claim 1, referring to a diverse alternate route determination process in which the physical link identifiers are received within a system capabilities information group or fields of a PNNI PTSE packet, and comparisons between the received physical link identifiers are used to select the diverse alternate route when the two identifiers are different. Accordingly, these claims are also submitted as not being anticipated or obvious in view of Wing So, for at least the same reasons given above in support of claim 1.

Any dependent claims not mentioned above are submitted as being neither anticipated nor obvious for at least the reasons given above in support of their respective base claims.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

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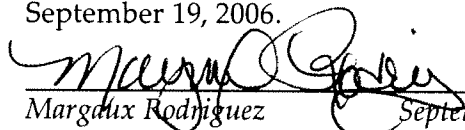
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Margaux Rodriguez September 19, 2006